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IDAHO CONTENT STANDARDS
GRADE 9
MATHEMATICS

Standard 1: Number and Operation

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 1.1: Understand and use numbers.	9.M.1.1.1 Apply properties of rational numbers. (347.01.b)	9.M.1.1.2 Use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation, including application in real world situations. (347.01.a)	9.M.1.1.3 Apply properties of exponents. (347.01.c)	9.M.1.1.4 Identify exact and approximate roots without simplification.	9.M.1.1.5 Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	9.M.1.1.6 Use appropriate vocabulary.			
Goal 1.2: Perform computations accurately.	9.M.1.2.1 Use the order of operations and perform operations with rational numbers. (347.02.a)								
Goal 1.3: Estimate and judge reasonableness of results.	9.M.1.3.1 Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	9.M.1.3.2 Identify that error accumulates in a computation when there is rounding. (349.05.b)							

Standard 2: Concepts and Principles of Measurement

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 2.1: Understand and use U.S. customary and metric measurements.	9.M.2.1.1 Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms and cylinders. (349.01.a)	9.M.2.1.2 Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.							
Goal 2.2: Apply the concepts of rates, ratios, and proportions.	9.M.2.2.1 Use rates, ratios, proportions, and map scales in problem-solving situations. (349.03.a)	9.M.2.2.2 Apply concepts of rates and direct and indirect measurements.	9.M.2.2.3 Construct equivalent units, comparable units, and conversions. (349.02.a)						
Goal 2.3: Apply dimensional analysis.	9.M.2.3.1 Use customary and metric units and their relationship to one another and to real world applications involving length, area, capacity, weight, time, and temperature. (349.04.a)								
Goal 2.4: Apply appropriate techniques and tools to determine measurements.	9.M.2.4.1 Determine and use appropriate units. (349.01.a)	9.M.2.4.2 Approximate error in measurement situations.							

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IDAHO CONTENT STANDARDS
GRADE 9
MATHEMATICS

Standard 3: Concepts and Language of Algebra and Functions

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.	9.M.3.1.1 Represent mathematical relationships using variables, expressions, linear equations and inequalities. (350.01.a)								
Goal 3.2: Evaluate algebraic expressions.	9.M.3.2.1 Use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, and rational numbers. (350.02.a)								
Goal 3.3: Solve algebraic equations and inequalities.	9.M.3.3.1 Use appropriate procedures to solve multi-step, first-degree equations and inequalities; such as 3(2x – 5) = 5x + 7 or 3(2x – 5) > 5x + 7. (350.03.a)	9.M.3.3.2 Differentiate between linear and non-linear equations and graphs.							
Goal 3.4: Solve simple linear systems of equations.	9.M.3.4.1 Use appropriate procedures to solve linear systems of equations involving two variables; such as x + y = 7 and 2x + 3y = 21. (350.04.a)								
Goal 3.5: Understand the concept of functions.	9.M.3.5.1 Given graphs, charts, ordered pairs, mappings, or equations, determine whether a relation is a function.	9.M.3.5.2 Evaluate functions written in functional notation.	9.M.3.5.3 Given a function, identify domain and range.						
Goal 3.6: Apply functions to a variety of problems.	9.M.3.6.1 Model and solve real-world phenomena using multi-step, first degree, single variable equations and inequalities, linear equations, and two-variable linear systems of equations. (353.01.a)	9.M.3.6.2 Use graphs and sequences to represent and solve problems. (347.02.b)							

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IDAHO CONTENT STANDARDS
GRADE 9
MATHEMATICS

Standard 4: Concepts and Principles of Geometry

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 4.1: Apply concepts of size, shape, and spatial relationships.	9.M.4.1.1 Recognize congruency and similarity of two-dimensional figures. (351.01.a)	9.M.4.1.2 Recognize similarity as it relates to size variations in two-dimensional objects. (351.01.b)							
Goal 4.2: Apply the geometry of right triangles.	9.M.4.2.1 Given the Pythagorean Theorem, calculate a missing side length of a right triangle where the legs and hypotenuse are natural numbers. (351.02.c)								
Goal 4.3: Apply graphing in two dimensions.	9.M.4.3.1 Identify attributes of the Cartesian Coordinate System, such as quadrants, origin, and axes. (351.03.a)	9.M.4.3.2 Graph scatter plots and identify informal trend lines (e.g., eyeball fit lines).	9.M.4.3.3 Identify positive and negative correlations.						
Goal 4.4: Represent and graph linear relationships.	9.M.4.4.1 Create graphs and equations for linear relationships.	9.M.4.4.2 Represent linear relationships using tables, graphs, and mathematical symbols.	9.M.4.4.3 Interpret attributes of linear relationships such as slope, rate of change, and intercepts.						

Standard 5: Data Analysis, Probability, and Statistics

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 5.1: Represent data with a variety of formats.	9.M.5.1.1 Analyze and interpret tables, charts, and graphs, including scatter plots, broken line graphs, and box-and-whisker plots. (352.01.a)								
Goal 5.2: Collect, organize, and display data.	9.M.5.2.1 Collect, organize, and display data in tables, charts, and graphs. (352.02.a)								
Goal 5.3: Apply simple statistical measurements.	9.M.5.3.1 Interpret and use basic statistical concepts, including mean, median, mode, range, and distribution of data, including outliers. (352.03.a)	9.M.5.3.2 Make predictions and draw conclusions based on statistical measures. (352.05.a)							
Goal 5.4: Understand basic concepts of probability.	9.M.5.4.1 Find probabilities based on dependent, independent, and compound events.	9.M.5.4.2 Contrast experimental and theoretical probability. (352.04.a)							

Goal 5.5: Make predictions or decisions based on data.	9.M.5.5.1 Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	9.M.5.5.2 Use appropriate tools/technology to conduct simulations and employ graphical models to make predictions or decisions based on data. (352.05.a)	9.M.5.5.3 Design, conduct, and interpret results of statistical experiments. (352.05.b)						

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IDAHO CONTENT STANDARDS
GRADE 10
MATHEMATICS

Standard 1: Number and Operation

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 1.1: Understand and use numbers.	10.M.1.1.1 Apply properties of rational numbers. (347.01.b)	10.M.1.1.2 Use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation, including application in real world situations. (347.01.a)	10.M.1.1.3 Apply properties of exponents. (347.01.c)	10.M.1.1.4 Identify exact and approximate roots without simplification.	10.M.1.1.5 Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	10.M.1.1.6 Use appropriate vocabulary.			
Goal 1.2: Perform computations accurately.	10.M.1.2.1 Use the order of operations and perform operations with rational numbers. (347.02.a)								
Goal 1.3: Estimate and judge reasonableness of results.	10.M.1.3.1 Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	10.M.1.3.2 Identify that error accumulates in a computation when there is rounding. (349.05.b)							

Standard 2: Concepts and Principles of Measurement

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 2.1: Understand and use U.S. customary and metric measurements.	10.M.2.1.1 Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, the volume of spheres, non-oblique prisms, cylinders, and cones, and the surface area of spheres, non-oblique prisms, cylinders, and right square-based pyramids. (349.01.a)	10.M.2.1.2 Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.							
Goal 2.2: Apply the concepts of rates, ratios, and proportions.	10.M.2.2.1 Use rates, ratios, proportions, map scales, and scale factors (one- and two-dimensional) in problem-solving situations. (349.03.a)	10.M.2.2.2 Apply concepts of rates and direct and indirect measurements.	10.M.2.2.3 Construct equivalent units, comparable units, and conversions. (349.02.a)						
Goal 2.3: Apply dimensional analysis.	10.M.2.3.1 Use customary and metric units and their relationship to one another and to real world applications involving length, area, capacity, weight, time, and temperature. (349.04.a)								
Goal 2.4: Apply appropriate techniques and tools to determine measurements.	10.M.2.4.1 Determine and use appropriate units. (349.01.a)	10.M.2.4.2 Approximate error in measurement situations.							

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MATHEMATICS

Standard 3: Concepts and Language of Algebra and Functions

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.	10.M.3.1.1 Represent mathematical relationships using variables, expressions, linear equations and inequalities. (350.01.a)								
Goal 3.2: Evaluate algebraic expressions.	10.M.3.2.1 Use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, and rational numbers. (350.02.a)								
Goal 3.3: Solve algebraic equations and inequalities.	10.M.3.3.1 Use appropriate procedures to solve multi-step, first-degree equations and inequalities; such as 3(2x – 5) = 5x + 7 or 3(2x – 5) > 5x + 7. (350.03.a)	10.M.3.3.2 Differentiate between linear and non-linear equations and graphs.							
Goal 3.4: Solve simple linear systems of equations.	10.M.3.4.1 Use appropriate procedures to solve linear systems of equations involving two variables; such as x + y = 7 and 2x + 3y = 21. (350.04.a)								
Goal 3.5: Understand the concept of functions.	10.M.3.5.1 Given graphs, charts, ordered pairs, mappings, or equations, determine whether a relation is a function.	10.M.3.5.2 Evaluate functions written in functional notation.	10.M.3.5.3 Given a function, identify domain and range.						
Goal 3.6: Apply functions to a variety of problems.	10.M.3.6.1 Model and solve real-world phenomena using multi-step, first degree, single variable equations and inequalities, linear equations, and two-variable linear systems of equations. (353.01.a)	10.M.3.6.2 Use graphs and sequences to represent and solve problems. (347.02.b)							

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Standard 4: Concepts and Principles of Geometry

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 4.1: Apply concepts of size, shape, and spatial relationships.	10.M.4.1.1 Recognize and apply congruency and similarity of two-dimensional figures. (351.01.a)	10.M.4.1.2 Recognize and use similarity as it relates to size variations in two- and three- dimensional objects. (351.01.b)							
Goal 4.2: Apply the geometry of right triangles.	10.M.4.2.1 Given the Pythagorean Theorem, calculate missing side lengths of right triangles without simplifying radicals. (351.02.c)								
Goal 4.3: Apply graphing in two dimensions.	10.M.4.3.1 Identify attributes of the Cartesian Coordinate System, such as quadrants, origin, and axes. (351.03.a)	10.M.4.3.2 Graph scatter plots and identify informal trend lines (e.g., eyeball fit lines).	10.M.4.3.3 Identify positive and negative correlations.						
Goal 4.4: Represent and graph linear relationships.	10.M.4.4.1 Create graphs and equations for linear relationships.	10.M.4.4.2 Represent linear relationships using tables, graphs, and mathematical symbols.	10.M.4.4.3 Interpret attributes of linear relationships such as slope, rate of change, and intercepts.						
Goal 4.5: Use reasoning skills.	10.M.4.5.1 Use logic to make and evaluate mathematical arguments. (348.02.b)								

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MATHEMATICS

Standard 5: Data Analysis, Probability, and Statistics

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 5.1: Represent data with a variety of formats.	10.M.5.1.1 Analyze and interpret tables, charts, and graphs, including scatter plots, multiple broken line graphs, and box-and-whisker plots. (352.01.a)								
Goal 5.2: Collect, organize, and display data.	10.M.5.2.1 Collect, organize, and display data in tables, charts, and graphs. (352.02.a)								
Goal 5.3: Apply simple statistical measurements.	10.M.5.3.1 Interpret and use basic statistical concepts, including mean, median, mode, range, and distribution of data, including outliers. (352.03.a)	10.M.5.3.2 Make predictions and draw conclusions based on statistical measures. (352.05.a)							
Goal 5.4: Understand basic concepts of probability.	10.M.5.4.1 Find probabilities based on dependent, independent, and compound events.	10.M.5.4.2 Contrast experimental and theoretical probability. (352.04.a)							
Goal 5.5: Make predictions or decisions based on data.	10.M.5.5.1 Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	10.M.5.5.2 Use appropriate tools/technology to conduct simulations and employ graphical models to make predictions or decisions based on data. (352.05.a)	10.M.5.5.3 Design, conduct, and interpret results of statistical experiments. (352.05.b)						